

Exhibit A

The Willy Report

The Willy Report: proof of massive fraudulent trading activity at Mt. Gox, and how it has affected the price of Bitcoin

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Somewhere in December 2013, a number of traders including myself began noticing suspicious bot behavior on Mt. Gox. Basically, a random number between 10 and 20 bitcoin would be bought every 5-10 minutes, non-stop, for at least a month on end until the end of January. The bot was dubbed “Willy” at some point, which is the name I’ll continue to use here. Since Willy was buying in such a recognizable pattern, I figured it would be easy to find in the Mt. Gox trading logs that were leaked about two months ago (there’s a torrent of the data [here](#)). However, the logs only went as far as November 2013; luckily, I was able to detect the buying pattern in the last few days of November. Below is a compiled log of its trades on the last two days of November (from the file “2013-11_mtgox_japan.csv”):

```
30-11-2013 10:10 - UID: 832432 Type: buy Currency: USD BTC: 14.011320 Fiat: 10093.02
30-11-2013 10:19 - UID: 832432 Type: buy Currency: USD BTC: 16.18210837 Fiat: 19561.92
30-11-2013 10:29 - UID: 832432 Type: buy Currency: USD BTC: 18.34173105 Fiat: 22136.74
30-11-2013 10:35 - UID: 832432 Type: buy Currency: USD BTC: 18.19262893 Fiat: 21885.52
30-11-2013 10:45 - UID: 832432 Type: buy Currency: USD BTC: 11.24527636 Fiat: 13492.78
30-11-2013 10:52 - UID: 832432 Type: buy Currency: USD BTC: 14.5141487 Fiat: 17416.93
30-11-2013 10:58 - UID: 832432 Type: buy Currency: USD BTC: 15.805611 Fiat: 18978.39
30-11-2013 11:06 - UID: 832432 Type: buy Currency: USD BTC: 14.96578741 Fiat: 18108.31
30-11-2013 11:13 - UID: 832432 Type: buy Currency: USD BTC: 18.49346572 Fiat: 22412.65
30-11-2013 11:18 - UID: 832432 Type: buy Currency: USD BTC: 12.77630467 Fiat: 15500.85
30-11-2013 11:25 - UID: 832432 Type: buy Currency: USD BTC: 13.70319422 Fiat: 16621.72
30-11-2013 11:35 - UID: 832432 Type: buy Currency: USD BTC: 14.95640049 Fiat: 18120.95
30-11-2013 11:41 - UID: 832432 Type: buy Currency: USD BTC: 15.29944656 Fiat: 18544.72
30-11-2013 11:51 - UID: 832432 Type: buy Currency: USD BTC: 14.10583655 Fiat: 17073.18
30-11-2013 11:58 - UID: 832432 Type: buy Currency: USD BTC: 14.50627441 Fiat: 17560.1
30-11-2013 12:03 - UID: 832432 Type: buy Currency: USD BTC: 13.07979536 Fiat: 15865.66
30-11-2013 12:13 - UID: 832432 Type: buy Currency: USD BTC: 11.88053668 Fiat: 14411.04
30-11-2013 12:20 - UID: 832432 Type: buy Currency: USD BTC: 11.46523059 Fiat: 13913.0
30-11-2013 12:30 - UID: 832432 Type: buy Currency: USD BTC: 19.89610521 Fiat: 24187.39
```

Some notes on how I obtained this data: first, I removed all exact duplicate entries from the log. As noted in an [earlier analysis](#), trades that involved a user ID “THK” – whose likely role was to facilitate cross-currency trades – were erroneously duplicated in the logs. Second, since the log contains an entry for each individual user-to-user trade, I aggregated every pair of trades involving the same user that occurred within 2 seconds from each other, assuming these belonged to the same market buy/sell (2 seconds to account for trading engine lag, which God knows was sometimes enormous on Mt. Gox).

You may note that these are actually multiple user IDs (denoted with “UID”); Willy was not a single account, its trading activity was spread over many accounts. Perhaps this is why others had been unable to find him in the database: there were plenty of people who [knew of its existence](#) (in fact the OP of this thread allegedly coined the name “Willy”). I noticed here that all of these accounts had one thing in common; the User_Country and User_State field both had “??” as entry. This was unusual. Normally, these fields contained country/state FIPS codes (for verified users?), nothing (unverified users?), or “!” (users who failed verification or suspicious users?).

So I went back and gathered all of these “??” users, aggregated their trades, and summed the amount of BTC that each of these accounts bought (they never performed a single sell). They seamlessly connected to each other: when one user became inactive, the next became active usually within a few hours. Their trading



activity went back all the way to

record of trades you can see below:

27-9-2013 13:41 - UID: 807884 Type: buy Fiat: 5183.15
 27-9-2013 13:42 - UID: 807884 Type: buy Fiat: 10615.65
 27-9-2013 13:50 - UID: 807884 Type: buy Fiat: 17103.01
 27-9-2013 13:58 - UID: 807884 Type: buy Fiat: 9138.56
 27-9-2013 14:05 - UID: 807884 Type: buy Fiat: 1988.84
 27-9-2013 14:15 - UID: 807884 Type: buy Fiat: 7783.81
 27-9-2013 14:27 - UID: 807884 Type: buy Fiat: 16724.02
 27-9-2013 14:35 - UID: 807884 Type: buy Fiat: 12697.49
 27-9-2013 14:48 - UID: 807884 Type: buy Fiat: 6683.61
 27-9-2013 14:56 - UID: 807884 Type: buy Fiat: 3203.12
 27-9-2013 15:07 - UID: 807884 Type: buy Fiat: 5454.27
 27-9-2013 15:18 - UID: 807884 Type: buy Fiat: 2933.12
 27-9-2013 15:32 - UID: 807884 Type: buy Fiat: 9966.66
 27-9-2013 15:43 - UID: 807884 Type: buy Currency: USD BTC: 87.6185501 Fiat: 12003.33
 27-9-2013 15:48 - UID: 807884 Type: buy Currency: USD BTC: 144.3968184 Fiat: 19918.03
 27-9-2013 16:01 - UID: 807884 Type: buy Currency: USD BTC: 61.32151277 Fiat: 8461.08
 27-9-2013 16:08 - UID: 807884 Type: buy Currency: USD BTC: 49.70599427 Fiat: 6859.43
 27-9-2013 16:22 - UID: 807884 Type: buy Currency: USD BTC: 30.88567460 Fiat: 4262.15

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And a compilation of when each account was active, how much BTC they bought, and how much USD they spent, with some totals at the bottom:

User_ID: 807884
 User: a6e1c702-e6b2-4585-bdaf-d1f00e6e7db2
 Start: 27-9-2013 13:41
 End: 1-10-2013 0:30
 BTC bought: 17650.499699839987
 USD spent: 250000.0

User_ID: 658152
 User: c1ac7aeb-ac34-49cd-8363-c4bcb36a2b9f
 Start: 10-10-2013 0:49
 End: 15-10-2013 1:53
 BTC bought: 17348.26542219
 USD spent: 250000.0

User_ID: 659582
 User: b337d02a-ccd5-4323-933d-35e59d228825

So basically, each time, (1) an account was created, (2) the account spent some very exact amount of USD to market-buy coins (\$2,500,000 was most common), (3) a new account was created very shortly after. Repeat. In total, a staggering ~\$112 million was spent to buy close to 270,000 BTC – the bulk of which was bought in November. So if you were wondering how Bitcoin suddenly appreciated in value by a factor of 10 within the span of one month, well, this is why. Not Chinese investors, not the Silkroad bust – these events may have contributed, but they certainly were not the main reason. But more on that later.

At this point, I noticed that the first Willy account (created on September 27th) unlike all the others had some crazy high user ID: 807884, even though regular accounts at that point only went up to 650000 or so. So I went looking for other unusually high user IDs within that month, and lo and behold, there was another time-traveller account with an ID of 698630 – and this account, after being active for close to 8 months, became completely inactive just **7 hours** before the first Willy account became active! So it is a reasonable assumption that these accounts were controlled by the same entity. Account 698630 actually had a registered country and state: "JP", "40" – the FIPS code for Tokyo, Japan. So I went and compiled all trades for this account. For convenience, I will dub this user "Markus". Its trades are as follows:

14-2-2013 3:37 - UID: 698630 Type: buy Currency: USD BTC: 2500.00000006 Fiat: 6600.01
 14-2-2013 3:37 - UID: 698630 Type: buy Currency: USD BTC: 2500.00000003 Fiat: 258373.84
 14-2-2013 3:39 - UID: 698630 Type: buy Currency: USD BTC: 500.0 Fiat: 187.76
 14-2-2013 3:42 - UID: 698630 Type: buy Currency: USD BTC: 500.00000003 Fiat: 16.06
 14-2-2013 3:53 - UID: 698630 Type: buy Currency: USD BTC: 500.0 Fiat: 2279.47
 14-2-2013 3:54 - UID: 698630 Type: buy Currency: USD BTC: 499.99999999 Fiat: 400.44
 14-2-2013 3:56 - UID: 698630 Type: buy Currency: USD BTC: 499.99999999 Fiat: 2.04
 14-2-2013 3:57 - UID: 698630 Type: buy Currency: USD BTC: 500.00000001 Fiat: 192.08
 14-2-2013 3:58 - UID: 698630 Type: buy Currency: USD BTC: 2500.00000004 Fiat: 1012.72
 14-2-2013 4:15 - UID: 698630 Type: buy Currency: USD BTC: 499.99999997 Fiat: 1565.39
 14-2-2013 4:16 - UID: 698630 Type: buy Currency: USD BTC: 1000.0 Fiat: 19961.94
 14-2-2013 4:18 - UID: 698630 Type: buy Currency: USD BTC: 1000.0 Fiat: 104.08
 14-2-2013 4:23 - UID: 698630 Type: buy Currency: USD BTC: 2000.00000035 Fiat: 2133.29
 14-2-2013 4:25 - UID: 698630 Type: buy Currency: USD BTC: 2499.99999998 Fiat: 35675.81
 14-2-2013 4:37 - UID: 698630 Type: buy Currency: USD BTC: 1000.00000005 Fiat: 29962.32
 14-2-2013 4:40 - UID: 698630 Type: buy Currency: USD BTC: 768.51248974 Fiat: 504.59
 19-2-2013 1:00 - UID: 698630 Type: buy Currency: USD BTC: 331.36211505 Fiat: 11577.17
 19-2-2013 1:00 - UID: 698630 Type: buy Currency: USD BTC: 2168.62789501 Fiat: 21526.2

There were several peculiar things about Markus. First, its fees paid were always 0. Second, its fiat spent when buying coins was all over the place, with seemingly completely random prices paid per bitcoin. For reference, Markus is the “Glitch in the System” user in [this excellent Gox DB visualization](#) (on that note, all of the Willy accounts are the “Greater Fools” with just big green blotches around Oct-Nov). Upon further inspection of the log, it became clear what was the cause of these seemingly random values:

Trade ID	Date	User ID	Japan	Type	Currency	Bitcoin	Money	Money_Rate	Money_JPY	Money_Fee	Money_Fee_Rate	Money_Fee_JPY	Bitcoin_Fee	Bitcoin_Fee_JPY	User_Country	User_State
136240615009116188	5-3-2013 6:48	238168	NPJ	buy	USD	0.58932991	22.39419	93.542	2094.796	0	93.542	0	0.0031234	10.651	PL	IT
136240615009116188	5-3-2013 6:48	109955	NPJ	sell	USD	0.58932991	22.39419	93.542	2094.796	0.13437	93.542	12.569	0	0	RU	
1362406144483228	5-3-2013 6:49	238168	NPJ	buy	USD	0.39820074	15.13163	93.542	1415.442	0	93.542	0	0.00211846	7.197	PL	IT
1362406144483228	5-3-2013 6:49	132909	NPJ	sell	USD	0.39820074	15.13163	93.542	1415.442	0.08322	93.542	7.785	0	0	IT	IT
1362406154023847	5-3-2013 6:49	698630	NPJ	buy	USD	1.70382	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406154023847	5-3-2013 6:49	96376	NPJ	sell	USD	1.70382	15.13163	93.542	1415.442	0.13462	93.542	18.205	0	0	GB	H3
1362406154714939	5-3-2013 6:49	698630	NPJ	buy	USD	1	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406154714939	5-3-2013 6:49	201601	NPJ	sell	USD	1	15.13163	93.542	1415.442	0.17531	93.542	16.399	0	0	VN	44
1362406154961316	5-3-2013 6:49	698630	NPJ	buy	USD	21	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406154961316	5-3-2013 6:49	35850	NPJ	sell	USD	21	15.13163	93.542	1415.442	2.1209	93.542	217.101	0	0	US	VA
1362406155003904	5-3-2013 6:49	698630	NPJ	buy	USD	28.067686	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406155003904	5-3-2013 6:49	698630	NPJ	buy	USD	28.067686	15.13163	93.542	1415.442	3.3201	93.542	290.160	0	0	US	VA
1362406155100014	5-3-2013 6:49	698630	NPJ	buy	USD	0.0326	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406155100014	5-3-2013 6:49	67861	NPJ	sell	USD	0.0326	15.13163	93.542	1415.442	0.00746	93.542	0.698	0	0	FR	AB
13624061551174763	5-3-2013 6:49	698630	NPJ	buy	USD	41	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
13624061551174763	5-3-2013 6:49	74362	NPJ	sell	USD	41	15.13163	93.542	1415.442	6.72056	93.542	628.654	0	0	RU	
1362406155278506	5-3-2013 6:49	698630	NPJ	buy	USD	0.211874	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406155278506	5-3-2013 6:49	10076	NPJ	sell	USD	0.211874	15.13163	93.542	1415.442	0.03475	93.542	3.249	0	0	SI	4
1362406157216185	5-3-2013 6:49	698630	NPJ	buy	USD	0.1	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406157216185	5-3-2013 6:49	93189	NPJ	sell	USD	0.1	15.13163	93.542	1415.442	0.01907	93.542	1.784	0	0	CA	
1362406157633412	5-3-2013 6:49	698630	NPJ	buy	USD	0.01000001	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406157633412	5-3-2013 6:49	90128	NPJ	sell	USD	0.01000001	15.13163	93.542	1415.442	0.00229	93.542	0.214	0	0	DE	IT
1362406157726648	5-3-2013 6:49	698630	NPJ	buy	USD	50	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406157726648	5-3-2013 6:49	125	NPJ	sell	USD	50	15.13163	93.542	1415.442	8.7722	93.542	820.569	0	0	US	IT
1362406157796949	5-3-2013 6:49	698630	NPJ	buy	USD	0.141111	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406157796949	5-3-2013 6:49	8456	NPJ	sell	USD	0.141111	15.13163	93.542	1415.442	0.8329	93.542	3.021	0	0	MX	
1362406157848772	5-3-2013 6:49	698630	NPJ	buy	USD	0.5	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406157848772	5-3-2013 6:49	178803	NPJ	sell	USD	0.5	15.13163	93.542	1415.442	0.0687	93.542	6.426	0	0	US	
1362406157972153	5-3-2013 6:49	698630	NPJ	buy	USD	5	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406157972153	5-3-2013 6:49	17547	NPJ	sell	USD	5	15.13163	93.542	1415.442	1.1451	93.542	107.115	0	0	US	NJ
1362406158026826	5-3-2013 6:49	698630	NPJ	buy	USD	0.02	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406158026826	5-3-2013 6:49	281813	NPJ	sell	USD	0.02	15.13163	93.542	1415.442	0.00458	93.542	0.428	0	0	DE	6
1362406158093875	5-3-2013 6:49	698630	NPJ	buy	USD	1.49	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406158093875	5-3-2013 6:49	87995	NPJ	sell	USD	1.49	15.13163	93.542	1415.442	0.26162	93.542	24.472	0	0	US	IT
1362406158130003	5-3-2013 6:49	698630	NPJ	buy	USD	0.1	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406158130003	5-3-2013 6:49	99189	NPJ	sell	USD	0.1	15.13163	93.542	1415.442	0.01909	93.542	1.786	0	0	CA	
1362406158222562	5-3-2013 6:49	698630	NPJ	buy	USD	0.01000001	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406158222562	5-3-2013 6:49	90128	NPJ	sell	USD	0.01000001	15.13163	93.542	1415.442	0.00229	93.542	0.214	0	0	DE	IT
1362406158293772	5-3-2013 6:49	698630	NPJ	buy	USD	5.28072	15.13163	93.542	1415.442	0	93.542	0	0	0	JP	40
1362406158293772	5-3-2013 6:49	90797	NPJ	sell	USD	5.28072	15.13163	93.542	1415.442	0.92737	93.542	86.748	0	0	DE	7

In this table, the first two trades (buy/sell pairs) are by some regular user with ID 238168. In the second trade, this user buys 0.398 BTC for \$15.13. The next trade is some large market buy by Markus (ID 698630): note how the “\$15.13” value from the previous trade seems to “stick”; regardless of the volume of BTC bought, the value paid is always \$15.13. This is speculation, but perhaps for Markus, the “Money” spent field is in fact empty, and the program that generates the trading logs simply takes whatever value was already there before. In other words, Markus is somehow buying tons of BTC without spending a dime. Interestingly, Markus also sells every now and then, and for some reason the price values are correct this case. His biggest sell occurred on June 2nd. I’ve analyzed these trades separately here:

2-6-2013 8:22 - UID: 698630 Type: sell Currency: USD BTC: 1998.98799992 Fiat: 254788.4
 2-6-2013 8:23 - UID: 698630 Type: sell Currency: USD BTC: 999.99999997 Fiat: 127026.48
 2-6-2013 8:23 - UID: 698630 Type: sell Currency: USD BTC: 1000.0 Fiat: 127002.4
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.0 Fiat: 127018.51
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.0 Fiat: 127001.35
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.00000005 Fiat: 127004.44
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.0 Fiat: 127000.0
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.00000003 Fiat: 127001.4
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.0 Fiat: 127000.0
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 999.99999998 Fiat: 126894.45
 2-6-2013 8:24 - UID: 698630 Type: sell Currency: USD BTC: 1000.0 Fiat: 126500.0
 2-6-2013 8:25 - UID: 698630 Type: sell Currency: USD BTC: 999.99999998 Fiat: 126417.04
 2-6-2013 8:26 - UID: 698630 Type: sell Currency: USD BTC: 995.0 Fiat: 125339.88
 2-6-2013 8:26 - UID: 698630 Type: sell Currency: USD BTC: 1847.3314792 Fiat: 231285.05
 2-6-2013 8:28 - UID: 698630 Type: sell Currency: USD BTC: 694.77000953 Fiat: 86753.84
 2-6-2013 8:30 - UID: 698630 Type: sell Currency: USD BTC: 1766.9595302 Fiat: 215912.72
 2-6-2013 8:32 - UID: 698630 Type: sell Currency: USD BTC: 2344.29615506 Fiat: 283975.16
 2-6-2013 8:36 - UID: 698630 Type: sell Currency: USD BTC: 101.00240171 Fiat: 22742.51

Sell 31k BTC, receive \$4 million, re-buy 15k BTC, spend nothing. Awesome! Here is [the corresponding chart](#) for this day, just to show that these trades (from 8:00 to 10:00 am) actually occurred “on-market”, and had a significant effect on the price.

Some totals compiled for Markus:

Start: 14-2-2013 3:37
 End: 27-9-2013 6:16
 User_ID: 698630
 User: b2853e3c-3ec0-4fa5-8231-d21e2fd13330

BTC bought: 335203.83080579044
 USD spent: \$???.??
 JPY spent: 0.0
 EUR spent: €2110.46

BTC sold: 37575.39028677996
 USD received: \$4,018,376.87
 JPY received: ¥2,744,463.91
 EUR received: 0.0

Another net ~300,000 BTC bought. Combined with Willy’s buys, that’s around 570,000 BTC in total. Although there are no trading logs after November, Willy was observed by multiple traders to be active for the most part of December until the end of January as well. Although this was at a slower, more consistent pace (around 2000 BTC per day), it should roughly add up to another 80,000 BTC or so bought. So that’s a total that’s suspiciously close to the supposedly lost ~650,000 BTC.

So... hacker, or inside job?

At this point, I guess the straightforward conclusion would be that this is how the coins were stolen: a hacker gained access to the system or database, was able to assign himself accounts with any amount of USD at will, and just started buying and withdrawing away. This is in line with what [GoxDox.org reported](#) last month (they leaked the Sunlot court filing, so clearly they have some inside info). After all, the constant creation of new Willy accounts seems almost intended to avoid detection. Unverified BTC withdrawals may have been possible until late 2013 (I could not find any exact data on this), or perhaps the “??” location values in the database (unlike the usual empty or “!” values for unverified users) were able to fool the system into thinking this user was verified. However, there are a lot of things that don’t add up with this theory; in fact there is a ton of evidence to suggest that all of these accounts were controlled by Mt. Gox themselves.

First, the obvious: Markus has Tokyo, Japan as its registered location. But any hacker could edit a DB entry to

try and frame someone (or even be located in Tokyo, however unlikely). However, none of the Willy accounts until November appear in the leaked balance summary at the time of collapse, and there seem to be no corresponding withdrawals for those amounts of bitcoin bought. Markus does have a balance: around 20 BTC and small amounts of EUR, JPY and PLN. No USD balance. In other words, only currencies for which Mt. Gox actively controlled bank accounts.

The next piece of evidence is perhaps more convincing. For some months in 2013, there were two versions of trading logs in the leaked database: a full log, and an anonymized log with user hashes and country/state codes removed. For April 2013, there was a .zip file which contained one such anonymized log – this is speculation, but one use of this may have been to send off to auditors/investors to show some internals. Upon closer inspection, it turns out the full and anonymized versions of all the logs differ in two, and ONLY two ways:

1. User hashes and country/state codes are removed.
2. **Markus' out-of-place user ID (698630) is changed to a small number (634), and its strange fixed "Money" values are corrected to the expected values.**

Interesting detail: from the 2011 leaked account list, the user with ID 634 has username "MagicalTux". Compare these two tables:

id	time	type	amount	balance	money	money2	money3	money4	money5	money6	money7	money8	money9	money10	money11	money12	money13	money14	money15	money16	money17	money18	money19	money20	money21	money22	money23	money24	money25	money26	money27	money28	money29	money30	money31	money32	money33	money34	money35	money36	money37	money38	money39	money40	money41	money42	money43	money44	money45	money46	money47	money48	money49	money50	money51	money52	money53	money54	money55	money56	money57	money58	money59	money60	money61	money62	money63	money64	money65	money66	money67	money68	money69	money70	money71	money72	money73	money74	money75	money76	money77	money78	money79	money80	money81	money82	money83	money84	money85	money86	money87	money88	money89	money90	money91	money92	money93	money94	money95	money96	money97	money98	money99	money100	money101	money102	money103	money104	money105	money106	money107	money108	money109	money110	money111	money112	money113	money114	money115	money116	money117	money118	money119	money120	money121	money122	money123	money124	money125	money126	money127	money128	money129	money130	money131	money132	money133	money134	money135	money136	money137	money138	money139	money140	money141	money142	money143	money144	money145	money146	money147	money148	money149	money150	money151	money152	money153	money154	money155	money156	money157	money158	money159	money160	money161	money162	money163	money164	money165	money166	money167	money168	money169	money170	money171	money172	money173	money174	money175	money176	money177	money178	money179	money180	money181	money182	money183	money184	money185	money186	money187	money188	money189	money190	money191	money192	money193	money194	money195	money196	money197	money198	money199	money200	money201	money202	money203	money204	money205	money206	money207	money208	money209	money210	money211	money212	money213	money214	money215	money216	money217	money218	money219	money220	money221	money222	money223	money224	money225	money226	money227	money228	money229	money230	money231	money232	money233	money234	money235	money236	money237	money238	money239	money240	money241	money242	money243	money244	money245	money246	money247	money248	money249	money250	money251	money252	money253	money254	money255	money256	money257	money258	money259	money260	money261	money262	money263	money264	money265	money266	money267	money268	money269	money270	money271	money272	money273	money274	money275	money276	money277	money278	money279	money280	money281	money282	money283	money284	money285	money286	money287	money288	money289	money290	money291	money292	money293	money294	money295	money296	money297	money298	money299	money300	money301	money302	money303	money304	money305	money306	money307	money308	money309	money310	money311	money312	money313	money314	money315	money316	money317	money318	money319	money320	money321	money322	money323	money324	money325	money326	money327	money328	money329	money330	money331	money332	money333	money334	money335	money336	money337	money338	money339	money340	money341	money342	money343	money344	money345	money346	money347	money348	money349	money350	money351	money352	money353	money354	money355	money356	money357	money358	money359	money360	money361	money362	money363	money364	money365	money366	money367	money368	money369	money370	money371	money372	money373	money374	money375	money376	money377	money378	money379	money380	money381	money382	money383	money384	money385	money386	money387	money388	money389	money390	money391	money392	money393	money394	money395	money396	money397	money398	money399	money400	money401	money402	money403	money404	money405	money406	money407	money408	money409	money410	money411	money412	money413	money414	money415	money416	money417	money418	money419	money420	money421	money422	money423	money424	money425	money426	money427	money428	money429	money430	money431	money432	money433	money434	money435	money436	money437	money438	money439	money440	money441	money442	money443	money444	money445	money446	money447	money448	money449	money450	money451	money452	money453	money454	money455	money456	money457	money458	money459	money460	money461	money462	money463	money464	money465	money466	money467	money468	money469	money470	money471	money472	money473	money474	money475	money476	money477	money478	money479	money480	money481	money482	money483	money484	money485	money486	money487	money488	money489	money490	money491	money492	money493	money494	money495	money496	money497	money498	money499	money500	money501	money502	money503	money504	money505	money506	money507	money508	money509	money510	money511	money512	money513	money514	money515	money516	money517	money518	money519	money520	money521	money522	money523	money524	money525	money526	money527	money528	money529	money530	money531	money532	money533	money534	money535	money536	money537	money538	money539	money540	money541	money542	money543	money544	money545	money546	money547	money548	money549	money550	money551	money552	money553	money554	money555	money556	money557	money558	money559	money560	money561	money562	money563	money564	money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Before Markus

[illegible]

The data is sorted by user ID. Highlighted is the likely original, legit user making a legit trade. The hash is